

(FILE 'HOME' ENTERED AT 13:42:23 ON 08 FEB 2003)

FILE 'REGISTRY' ENTERED AT 13:42:28 ON 08 FEB 2003

L1 5022 S CYCLOHEXANE DIMETHANOL?
L2 1 S PCCD/CN
L3 7520 S CYCLOHEXANE DICARBOXYLIC ACID?
L4 34 S L3 AND CIS AND TRANS
L5 3073 S 105-08-8/CRN
L6 54 S L5 AND (94-60-0/CRN OR 619-81-8/CRN OR 619-82-9/CRN)
L7 2 S L6 AND 2/NC
L8 2708 S L5 AND PES/PCT
L9 2424 S L8 NOT TEREPHTHALIC?
L10 2291 S L9 NOT ISOPHTHALIC?
L11 1530 S L10 AND DICARBOXYLIC?

FILE 'CA' ENTERED AT 13:55:13 ON 08 FEB 2003

L12 51982 S POLYCARBONATE? OR C08L069?/IC
L13 4 S L12 AND L7
L14 1 S L12 AND L6 NOT L13
L15 66 S L12 AND L11 NOT (L13 OR L14)

ER 61 OF 66 CA COPYRIGHT 2003 ACS

AN 103:216398 CA

TI Ionizing radiation-resistant polymer compositions

IN Avakian, Roger W.

PA General Electric Co., USA

SO Eur. Pat. Appl., 27 pp.

CODEN: EPXXDW

DT Patent

LA English

IC ICM **C08L069-00**

ICS C08K005-00

ICA A61L002-08

CC 37-6 (Plastics Manufacture and Processing)

FAN.CNT 2

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|------|----------|-----------------|----------|
| | ----- | ---- | ----- | ----- | ----- |
| PI | EP 152012 | A2 | 19850821 | EP 1985-100929 | 19850130 |
| | EP 152012 | A3 | 19860312 | | |
| | R: DE, FR, GB, IT, NL | | | | |
| | JP 60192759 | A2 | 19851001 | JP 1985-23687 | 19850212 |
| | US 4874783 | A | 19891017 | US 1987-136606 | 19871222 |
| | US 4876309 | A | 19891024 | US 1987-136682 | 19871222 |
| | US 4880853 | A | 19891114 | US 1987-136607 | 19871222 |
| | US 4880854 | A | 19891114 | US 1987-136608 | 19871222 |
| | US 4880855 | A | 19891114 | US 1987-136609 | 19871222 |
| | US 4882366 | A | 19891121 | US 1987-136683 | 19871222 |
| | US 4880850 | A | 19891114 | US 1989-309050 | 19890207 |
| | US 4939185 | A | 19900703 | US 1989-396727 | 19890818 |
| | US 4939186 | A | 19900703 | US 1989-401533 | 19890830 |
| | US 4996246 | A | 19910226 | US 1989-424431 | 19891020 |
| | US 4996248 | A | 19910226 | US 1989-424489 | 19891020 |
| | US 4996247 | A | 19910226 | US 1989-424494 | 19891020 |
| | US 4996244 | A | 19910226 | US 1989-425618 | 19891020 |
| PRAI | US 1984-579103 | | 19840210 | | |
| | US 1985-769103 | | 19850826 | | |
| | US 1985-769277 | | 19850826 | | |
| | US 1987-110159 | | 19871016 | | |
| | US 1987-136604 | | 19871222 | | |
| | US 1987-136606 | | 19871222 | | |
| | US 1987-136607 | | 19871222 | | |
| | US 1987-136608 | | 19871222 | | |
| | US 1987-136609 | | 19871222 | | |
| | US 1987-136682 | | 19871222 | | |
| AB | Yellowing of arom. polycarbonates and their blends in radiation sterilization is suppressed by adding 0.05-2 phr stabilizer reacting rapidly with active species such as H or OH radicals or hydrated electrons. Thus, 50 parts bisphenol A polycarbonate [24936-68-3] was mixed with 50 parts copolyester [26124-27-6] (85:15:100 terephthalate-isophthalate-1,4-cyclohexanedimethanol), 0.2 part Good-rite 3125 (I) [34137-09-2], and 0.00102 part red and blue dyes. This blend, exposed to 5 Mrad gamma rays, had yellowing index 4.13, vs. 7.48 in the absence of I. | | | | |
| ST | yellowing polycarbonate radiation stabilizer; polyester polycarbonate blend stabilizer; blend polycarbonate radiation stabilizer; gamma ray polycarbonate stabilizer | | | | |
| IT | Poly | | | | |

ER 60 OF 66 CA COPYRIGHT 2003 ACS

AN 104:6673 CA

TI Enhancing ionizing radiation resistance of normally susceptible polymers

IN Allen, Richard Brian; Avakian, Roger W.

PA General Electric Co., USA

SO Eur. Pat. Appl., 23 pp.

CODEN: EPXXDW

DT Patent

LA English

IC ICM **C08L069-00**

ICS C08L067-02; A61L031-00; A61L029-00

ICA A61L002-08

ICI C08L069-00, C08L067-02; C08L067-02, C08L069-00

CC 37-6 (Plastics Manufacture and Processing)

Section cross-reference(s): 63

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|----|------------|------|----------|-----------------|----------|
| PI | EP 152825 | A2 | 19850828 | EP 1985-100931 | 19850130 |
| | EP 152825 | A3 | 19851002 | | |
| | EP 152825 | B1 | 19890517 | | |

R: DE, FR, GB, IT, NL

JP 60199051 A2 19851008

JP 1985-23686 19850212

JP 06035537 B4 19940511

PRAI US 1984-579102 19840210

AB Arom. **polycarbonates**, poly(ester-carbonates),
poly(sulfone-carbonates), and arom. polyesters are blended with
polyesters

or poly(sulfone-carbonates) for improving the ionizing radiation
resistance when molded into medical products. For example,
poly(bisphenol

A carbonate) [24936-68-3] as base resin was mixed with 20%
poly(carbonate-sulfone) and gamma-irradiated to 5.7 Mrads. The yellowing
index was 21.49, in comparison to 42.34 for no additive, and the slope
was

3.7 in comparison to 7.42 for no additive, indicating less yellowing.

ST **polycarbonate** polyarylate polysulfone; radiation resistance
polymer blend

IT **Polycarbonates**

RL: USES (Uses)

(blends with polyesters or polysulfones, resistant to discoloration
during sterilization by irradiation.)

IT Discoloration prevention

(of transparent **polycarbonate** moldings during sterilization
by irradiation.)

IT Sterilization and Disinfection

(of transparent polymer moldings for medical use, by irradiation.,
discoloration in)

IT Plastics, molded

RL: USES (Uses)

(**polycarbonate** blends with polyesters or polysulfones,
resistant to discoloration during sterilization by irradiation.)

IT Polyesters, uses and miscellaneous

RL:

L15 ANSWER 32 OF 66 CA COPYRIGHT 2003 ACS
 AN 124:318654 CA
 TI Dynamic mechanical and dielectric relaxation study of aliphatic polyester based blends
 AU Stack, Gary M.; O'Reilly, J. M.
 CS East Chemical Company, Kingsport, TN, 37662, USA
 SO Polymeric Materials Science and Engineering (1993), 69, 4-5
 CODEN: PMSEDG; ISSN: 0743-0515
 PB American Chemical Society
 DT Journal
 LA English
 CC 37-5 (Plastics Manufacture and Processing)
 AB Mech. properties and dielec. relaxation were studied for blends of 1,4-cyclohexanedimethanol-1,4-cyclohexanedicarboxylic acid copolymer with bisphenol A **polycarbonate** or bisphenol A-isophthaloyl chloride-terephthaloyl chloride copolymer.
 ST polyester blend mech property; dielec relaxation polyester blend; **polycarbonate** polyester blend property
 IT Dielectric relaxation
 (dynamic mech. and dielec. relaxation study of polyester-**polycarbonate** and polyester-polyester blends)
 IT **Polycarbonates**, properties
 Polyesters, properties
 RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)
 (dynamic mech. and dielec. relaxation study of polyester-**polycarbonate** and polyester-polyester blends)
 IT Plastics
 RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)
 (**polycarbonate**-polyester; dynamic mech. and dielec. relaxation study of polyester-**polycarbonate** and polyester-polyester blends)
 IT 24936-68-3, Bisphenol A-carbonic acid copolymer, sru, properties
 25037-45-0, Bisphenol A-carbonic acid copolymer 25639-68-3, Bisphenol A-isophthaloyl chloride-terephthaloyl chloride copolymer 29088-80-0, 1,4-Cyclohexanedicarboxylic acid-1,4-cyclohexanedimethanol copolymer, sru **29089-13-2**, 1,4-Cyclohexanedicarboxylic acid-1,4-cyclohexanedimethanol copolymer 39281-59-9, Bisphenol A-isophthaloyl chloride-terephthaloyl chloride copolymer, sru
 RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)
 (dynamic mech. and dielec. relaxation study of polyester-**polycarbonate** and polyester-polyester blends)

L15 ANSWER 30 OF 66 CA COPYRIGHT 2003 ACS
 AN 125:115964 CA
 TI A free volume approach to the mechanical behavior of miscible
polycarbonate blends
 AU Hill, A. J.; Zipper, M. D.; Tant, M. R.; Stack, G. M.; Jordan, T. C.;
 Shultz, A. R.
 CS Fac. Eng., Monash Univ., Victoria, 3168, Australia
 SO Journal of Physics: Condensed Matter (1996), 8(21), 3811-3827
 CODEN: JCOMEL; ISSN: 0953-8984
 PB Institute of Physics Publishing
 DT Journal
 LA English
 CC 37-5 (Plastics Manufacture and Processing)
 Section cross-reference(s): 36
 AB Compn.-dependent mech. properties and free vols. are compared for
 miscible, amorphous blends of bisphenol-A **polycarbonate** (PC)
 with (a) polyaryloxysiloxane (PAS), (b) a copolyester of
 1,4-cyclohexanedimethanol and a mixt. of isophthalic and terephthalic
 acids (Estar) and (c) an exptl. polyester of 1,4-cyclohexanedicarboxylic
 acid and 1,4-cyclohexanedimethanol (CDACD). The free vols. were measured
 by the positron annihilation lifetime spectroscopy (PALS) technique. The
 strength of specific interactions, as indicated by Tg data, is relatively
 weak in all of the blends. However, the fractional free vol. quantity
 measured by PALS (.tau.33I3) is less than additive in the polyester
 blends
 and is additive, or greater than additive in the PC-PAS blends. The
 mech. behavior of the blends can be rationalized in terms of the free vol.
 behavior. The polyester blends which lose free vol. (contract) on mixing
 exhibit higher than av. yield strengths and brittle impact responses.
 The PC-PAS blends which retain or gain free vol. on mixing exhibit av. yield
 strengths and av. ductile impact responses of the constituent polymers.
 ST mech behavior miscible **polycarbonate** blend; arom polyester
polycarbonate blend property; free vol mech behavior
polycarbonate blend; polyaryloxysiloxane **polycarbonate**
 blend mech behavior
 IT Siloxanes and Silicones, properties
 RL: PEP (Physical, engineering or chemical process); POF (Polymer in
 formulation); PRP (Properties); PROC (Process); USES (Uses)
 (biphenylene, **polycarbonate** blends; compn.-dependent mech.
 properties and free vols. in miscible **polycarbonate** blends)
 IT Glass temperature and transition
 (compn.-dependent mech. properties and free vols. in miscible
polycarbonate blends)
 IT **Polycarbonates**, properties
 RL: PEP (Physical, engineering or chemical process); POF (Polymer in
 formulation); PRP (Properties); PROC (Process); USES (Uses)
 (compn.-dependent mech. properties and free vols. in miscible
polycarbonate blends)
 IT Plastics
 RL: PEP (Physical, engineering or chemical process); POF (Polymer in
 formulation); PRP (Properties); PROC (Process); USES (Uses)
 (**polycarbonate** blends with polyesters and
 polyaryloxysiloxanes; compn.-dependent mech. properties and free vols.
 in miscible **polycarbonate** blends)
 IT Polyesters, properties
 RL: PEP (Physical, engineering or chemical process); POF (Polymer in

formulation); PRP (Properties); PROC (Process); USES (Uses)
 (polycarbonate blends; compn.-dependent mech. properties and
 free vols. in miscible polycarbonate blends)

IT Polyesters, properties
 RL: PEP (Physical, engineering or chemical process); POF (Polymer in
 formulation); PRP (Properties); PROC (Process); USES (Uses)
 (arom., polycarbonate blends; compn.-dependent mech.
 properties and free vols. in miscible polycarbonate blends)

IT Volume
 (free, compn.-dependent mech. properties and free vols. in miscible
 polycarbonate blends)

IT 24936-68-3, Bisphenol A polycarbonate, properties
 RL: PEP (Physical, engineering or chemical process); POF (Polymer in
 formulation); PRP (Properties); PROC (Process); USES (Uses)
 (Makrolon 2608 and Lexan 141; compn.-dependent mech. properties and
 free vols. in miscible polycarbonate blends)

IT 25037-45-0
 RL: PEP (Physical, engineering or chemical process); POF (Polymer in
 formulation); PRP (Properties); PROC (Process); USES (Uses)
 (compn.-dependent mech. properties and free vols. in miscible
 polycarbonate blends)

IT 26124-27-6, 1,4-Cyclohexanedimethanol-isophthalic acid-terephthalic acid
 copolymer 29088-80-0, 1,4-Cyclohexanedimethanol-1,4-
 cyclohexanedicarboxylic acid copolymer, sru 29089-13-2, ,
 1,4-Cyclohexanedimethanol-1,4-cyclohexanedicarboxylic acid copolymer
 51910-62-4, 1,4-Cyclohexanedimethanol-isophthalic acid-terephthalic acid
 copolymer, sru 139321-71-4
 RL: PEP (Physical, engineering or chemical process); POF (Polymer in
 formulation); PRP (Properties); PROC (Process); USES (Uses)
 (polycarbonate blends; compn.-dependent mech. properties and
 free vols. in miscible polycarbonate blends)